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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,994	03/26/2004	Memphis Zhihong Yin	10010594-2	8996

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EXAMINER	
DINH, DUC Q	

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/810,994	YIN, MEMPHIS ZHIHONG	
	Examiner	Art Unit	
	DUC Q. DINH	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to the Amendment filed on December 12, 2005. Claims 1-19 are pending in the Application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,784,870.

The current Application recites at least one limitation in claims 1"a first movement sensor associated with the housing and adapted to sense movement of the housing associated relative to the surface; and a second movement sensor associated with the housing and the movable member and adapted to sense movement of one of the housing and the movable member relative to the other of the housing and the movable member", whereas the conflict

claims 1-12 of the U.S Patent No. 6,784,870 recites at least one limitation "a first movement sensor associated with the housing and adapted to sense movement of the housing associated relative to the surface; and a second movement sensor associated with the housing and the movable member and adapted to sense movement of one of the housing and the movable member relative to the other of the housing and the movable member". It would have been obvious to recognize both of the pending application and the patent 6,954,191 disclose the same combinable input device used for a portable computer.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harding et al. (U.S Patent No 6,184,869) hereinafter Harding, in view of Barr (U.S Patent No 5,894,303).

In reference to claim 1, Harding discloses a peripheral device (10) for use on a surface, comprising: a housing (12) defining longitudinal ends and a longitudinal axis; a first movement sensor (32, 34) associated with the housing (12) and adapted to sense movement of the housing relative to the surface (col. 4, lines 32-52); a movable member (50), associated with one of the housing (12), a second movement sensor (52, 54) associated with the housing and the movable member adapted to sense movement of one of the housing and the movable member relative to the other of the housing and the movable member (50) [col. 4, line 56- col.5, line 6).

Harding does not disclose the movable member (50) associated with one of the longitudinal ends such that the movable member will engage the surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface, and movable relative to the housing.

Barr discloses a computer input device in Fig. 1-4 having movable member (11) associated with one of the longitudinal ends such that the movable member will engage the surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface, and movable relative to the housing.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the movable member associated with one of the longitudinal ends such that the movable member will engage the surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface, and movable relative to the housing in the device of Harding as taught by Barr because it would provide a computer input device has an external contour which substantially conforms to the mean of the contour of the palm side surface of the hand, when the hand is in a relaxed, neutral condition, with the palm surface vertically disposed (col. 3, lines 42-46).

In reference to claim 2, Harding discloses that movement sensors (3, 32 and 52, 54) may be comprised of optical device (col. 5, lines 55-58).

In reference to claim 3, Harding discloses that the movable member comprises a ball (50) and the second sensor including a sensor arrangement that monitor rotation of the ball (col. 4, lines 55-65).

In reference to claim 4, Harding the housing defines and exterior and having at least one button (18a –18c) associated with the exterior of the housing.

In reference to claim 5, Harding discloses movement sensed by the first and second movement sensors is converted into movement data that is indicative of movement (col. 3, lines 50-63), the peripheral device further comprising: a wireless movement data transmitter (col. 5, lines 7-11).

In reference to claim 6, Harding disclose wherein the housing defines a bottom surface, the first movement sensor (30, 32) is associated with the bottom surface, and the movable member (50) is positioned in spaced relation to the bottom surface.

6. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers (U.S Patent No 6, 329,634) in view of Barr (U.S Patent No. 5,894,303).

In reference to claim 7, Bowers discloses a peripheral device (30) for use with a portable computer including a computer mechanical connector (54a), comprising: a housing defining longitudinal ends and a longitudinal axis; a movement sensor (70, 76); and a peripheral device mechanical connector (54) configured to mate with the computer mechanical connector (54a).

Accordingly, Bowers discloses everything except the housing including a plurality of ridges configured to augment a user's grip on the housing. Barr discloses a computer mouse having plurality of ridges (22, 24, 16 and 17) to conform a user's grip on the housing of the mouse.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the housing to have the shape that conforms to the smoothed-out means of the contour

of the palm to augment the user's grip for the device of Bowerss as taught by Barr because it would provide an ergonomic mouse providing for grasping the mouse by the hand of a person-operator while the hand and wrist, in the radial-ulnar deviation plane, and forearm of the person are maintained in a completely neutral, natural state. The external surface contour of the novel computer mouse is appropriate for either right hand or left hand use (col. 3,lines 33-40).

In addition, Barr discloses a movement sensor (40, 42) associated with one of the longitudinal ends of the housing such that the movement sensor (40, 42) will engage a surface in response to the placement of the peripheral device on the surface with the axis perpendicular to the surface (see Figs, 1-5).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the movable member associated with one of the longitudinal ends such that the movable member will engage the surface in response to a placement of the peripheral device on the surface with the axis perpendicular to the surface in the device of Harding as taught by Barr because it would provide a computer input device has an external contour which substantially conforms to the mean of the contour of the palm side surface of the hand, when the hand is in a relaxed, neutral condition, with the palm surface vertically disposed (col. 3, lines 42-46).

In reference to claim 9, Bowers discloses the movement of the sensor is adapted to sense the movement of the housing relative of the surface (Fig. 5).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers (U.S Patent No 6, 329,634) in view of Barr (U.S Patent No. 5,894,303) as applied to claim 7 and further in view of Klein et al. (U.S Patent No. 6,163,326).

In reference to claim 8, the combination of Bowers and Barr does not disclose peripheral device mechanical connector comprises at least one housing aperture. Klein discloses in Fig. 7, a aperture 60 is used to receive the computer latch (36) as connector of the mouse housing and the laptop computer.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the mechanical connector to have the aperture as connector to the laptop computer in the combination of Bowers and Barr order to achieve the benefit of avoiding the detachable input device separate from the base if the input device is jostled or bumped, requiring the user to take time to reattach (col. 1, line 63 – col.2, line 11).

8. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers (U.S Patent No 6, 329,634) in view of Barr (U.S Patent No. 5,894,303) as applied to claim 7 above and further in view Harding et al. (U.S Patent No 6,184,869) hereinafter Harding.

In reference to claims 10-11, refer to the rejection as applied to claim 7. Harding teaches a movable member (50) associated with the housing (12) and movable relative to the housing (12), a second movement sensor (52, 54) associated with the housing (12) and the movable member (50) relative to the other of the housing and adapted to sense movement of one of the housing and the movable member (50) relative to the other of the housing and the movable member (50) (see column 4,line 56 through column 5, line 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the invention to have used a movement sensor and a second movement sensor as taught by Harding to the input device of Bowers as modified by Barr so as to provide an input device having

multidimensional, having more than two dimensions simultaneously (see column 2, lines 39-51 of Harding).

In reference to claim 12, Harding teaches that "the input device 10 with its own resident power source and to transmit data signal from the input device to the computer using wireless transmission technology, such as infrared and transmission (col. 5, lines 7-11).

In reference to claim 13, Harding teaches that "encoder (30, 32, 52 and 54) may be comprised of electromagnetic or optical device (see column 5, lines 55-58).

9. Claims 14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers (U.S. Patent No. 6,329,634) in view of Prosenko (GB 2,139,762).

In reference to claim 14, Bowers discloses a system including a portable computer (10) including a keyboard (14), a display (24), a housing (12, 22), computer mechanical connector (54a) and a peripheral device (30) including a housing (32), movement sensor (70, 76) and a peripheral device mechanical connector (54) configured to mate with the computer mechanical connector (54a). The only thing Bowers does not mention is a touch pad adjacent to the keyboard. Prosenko teaches touch pad (63) adjacent to the keyboard (13) (see Figures 1 and 3).

Therefore, it would have been obvious to one of ordinary skill in the ad at the invention was made to have used touch pad as taught by Prosenko to the device of Bowers so as to allow the operator to keep his or her eyes on the display screen without having to look for a separate execution button (see lines 13-30 of Prosenko).

In reference to claim 17, Bowers clearly teaches the peripheral device (30) including a wireless transmitter and the portable computer including a wireless receiver (see column 6, line 61 through column 7,line 4).

In reference to claim 18, Bowers clearly teaches a second housing portion (e.g., lid 22) pivotable relative to the first housing portion (base 12) between an open position and closed position.

In reference to claim 19, Bowers clearly teaches the peripheral device (30) is a mouse.

10. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers in view of Prosenko as applied to claim 14 and 17-19 above, and further in view of Lin (U.S. Patent No. 6,094.341).

In reference to claim 15, note the discussion of Bowers and Prosenko above, both do not mention a handle portion. Lin teaches a handle portion (13) located on the cover of the laptop computer or portable computer (1) (see Figure 1). Bowers teaches an open region located on the keyboard portion (12) of the laptop computer or portable computer (10). Thus, combining the handle portion (13) of Lin and the open region (58) of Bowers would meet the claimed "an open region is defined between the handle portion and another portion of the portable computer housing" as broad claimed language Bowers clearly teaches the peripheral device mechanical connector (54) facing away from the opening region (58).

It would have been obvious to one of ordinary skill in the art at the invention was made to use the handle portion of Lin to the portable computer of Bowers as modified by Prosenko so that the portable can be carried easily by a user.

In reference to claim 16, Lin teaches the computer housing handle portion defines a portion of an overall device handle (i.e. handle 13 and front side of the cover 12 and front face of the keyboard housing) and combining handle portion (13) of Lin hand peripheral device (30) would meet the claimed "the peripheral device housing defines a remainder of the overall device handle".

Response to Arguments

11. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection. With respect to claims 14-19, Applicant argues "Pointing device 30a functions as a touch pad when attached to the computer and as mouse when detached" and "in contrast with the invention defined by claim 14, the touch pad on the Bowers computer 10a is on the peripheral device (see page 10-11 of the Remark). The examiner respectfully disagrees, as indicated by Bowers, Fig. 7 *is an alternate embodiment of the Bowers in which the pointing device is modified* "an alternate embodiment 10a of the computer 10 is illustrated in FIG. 7 and is provided with a modified pointing device 30a disposed in its trackball orientation in which it is removably received in the housing recess 58. *The pointing device 30a is substantially identical to the previously described pointing device 30 with the exception that the ball 52 (see FIG. 3) does not project through the device housing side 38, and is not used to provide the modified pointing device 30a with its track ball function*. **Instead**, a conventional touch pad structure 92 is mounted on the top side 38 of the device housing 32 behind the two pointer select buttons 46 thereon. Touch pad 92 is electronically coupled to the pointing device and functions in a conventional manner" (col. 7, lines 15-35). It is clear that Bowers does not disclose the input device including the touch pad in the pointing device 30 in the other

embodiment, and does not disclose a touch pad provided adjacent to the keyboard of the portable computer 10. Therefore, it would have been obvious to one of ordinary skill in the ad at the invention was made to have used touch pad as taught by Prosenko to the device of Bowers so as to allow the operator to keep his or her eyes on the display screen without having to look for a separate execution button (see lines 13-30 of Prosenko) as discussed above. The rejection applied to claims 14-19 is maintained.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edouard Patrick can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH
Examiner
Art Unit 2674

DQD
February 18, 2006

PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER